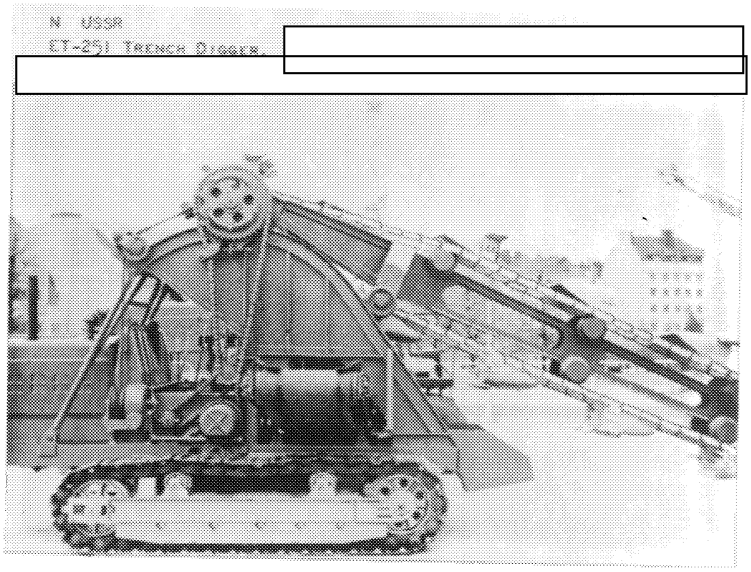
25X1

25X1



25X1

SECRET

CONFIDENTIAL

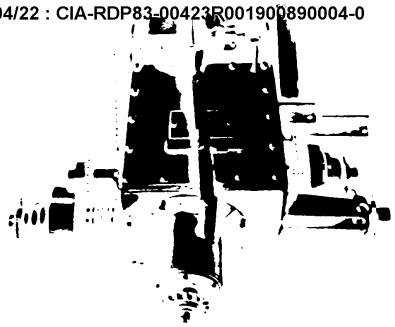
6/17/98

25X1 25X1

CORRECT SPEED FOR ANY DIGGING CONDITION

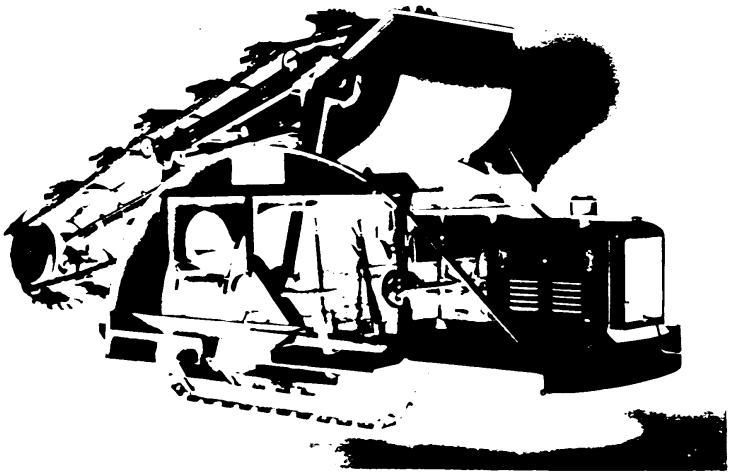
The Parsons 221 Trenchliner has a wide range of speeds, 5 in each of the two transmissions, which are enclosed and operate in oil. In combination, they provide 25 ratios for varying the digging or slow traction speed of the crawlers, from 2 inches per minute in low-low to 118 inches per minute in high-high. This means you can always operate at the speed most effective in turning out maximum production for the type of materials and the size of the trench being excavated. There is plenty of power available in any speed on the bucket line and crawlers to handle all types of soil from cemented gravel or shale to stiff clay or loam.

For job-to-job or trench-to-trench travel, the crawlers are driven by the primary transmission through a gear-box providing 5 high traction speeds from $\frac{1}{2}$ to $2\frac{3}{4}$ miles per hour. In all, there are 30 crawler speed variations, 25 for digging traction and 5 for traveling traction. There are also 5 variations for the bucket line and conveyor belt speeds. All operations are reversible.



Gears enclosed, run in oil

The Parsons 221 Trenchliner can give you maximum trench production per hour because it delivers more power to the bucket line. Friction losses are reduced by extensive use of anti-friction bearings . . . there's not a babbitted bearing anywhere on the entire machine. Power flows in a direct line without detours, gears are enclosed and run in oil. Short, large diameter shafts in a rigid gear case hold their alignment, can't rob power by bending or wearing. Main machinery is sealed from dirt and grit that steals power and diminishes efficiency. This modern design not only provides a more direct power flow and less power loss but also a minimum of downtime and expense. You can expect many trouble-free hours of uninterrupted, profitable operation.



221

R

COST

TRENCHES to 8' DEEP, 36" WIDE

Builders of trench excavators for over 40 years . . . first with full crawler traction . . . fully enclosed gearing . . . originators of shiftable boom . . . bucket chain with reversible, self-locking links and pins . . . quick shift arc-type conveyor . . . arched frame for improved balance and clearance.

To complete its line of modern trenching machines, Parsons presents the 221 Trenchliner. Handy, fast and economical, the 221 Trenchliner handles all types of utility trenching as well as railroad drainage and other applications requiring excavations within its capacity range. The 221 Trenchliner digs to 8' deep, carries buckets to dig from 16" to 24" wide, can dig trenches to 36 inch width with side cutters. Either gasoline or diesel engines are available

In every detail, the 221 Trenchliner is precision-built, a product of highest quality, built for many years of service.

The 221 Trenchliner is built to a standard, not a price with all the features which have made Parsons the outstanding name in the trenching field for over 40 years

The 221 Trenchliner incorporates all the modern Parsons improvements developed during the war and now going into the larger Parsons Trenchliners. It has the same sturdy welded construction, and within its range of widths and depths will work in as hard materials, maintain as accurate grades, and can be operated with the same convenience and low maintenance. It has the same direct power flow, the same convenient controls, the same range of operating speeds that provides a correct speed for every type of digging. It has the same arched frame that is typical of the Parsons Trenchliners. The main gear case, the heart of the Trenchliner, is identical to the assembly used on the larger Parsons machines.

DETAILED DIMENSIONS

CONDENSED SPECIFICATIONS

DEPTH OF TRENCH: Up to 8'-0"

DIGGING WIDTHS: Buckets: 16", 20", 24"
With Special Teeth: 22", 26", 30"
With Sidecutters: 28", 32", 36"

DIGGING SPEEDS: 25 — from 2" to 118" per min.

BUCKET LINE SPEEDS: 5 — 31 to 232 ft. per min.

TRAVELING SPEEDS: 5 — ½ to 2¾ miles per hr.

CONVEYOR BELT SPEEDS: 5 — 48 to 357 ft. per min.

ENGINES: Waukesha Gasoline, 6 cyl. at 1500 R.P.M., 54 H.P.
Caterpillar Diesel, 4 cyl. at 1500 R.P.M., 45 H.P.
International Diesel, 4 cyl. at 1500 R.P.M., 45 H.P.

BEARING PRESSURE: 7 lbs. per square inch

SHIPPING WEIGHT: 22,000 lbs. approx. with [illegible] line engine

BOOM: Shiftable across entire [illegible] Telescopic type

CONVEYOR BELT: 20" wide, [illegible] V-strip

SAFETY CLUTCH: Band type, [illegible]

GEARING: Enclosed, running [illegible] blanks, mounted on alloy steel [illegible]

CONVEYOR: Power-shifted to either [illegible] equipped rollers

CRAWLERS: 16" tread, 7'-4" center to center [illegible]

BUCKET CLEANER: Spring [illegible]

FRAME: Arch type, fully welded

In accordance with our established policy of constant improvement, we reserve the right to amend these specifications at any time without notice.

SOLD BY

Litho in U.S.A.

PARSONS CO. Newton, Iowa

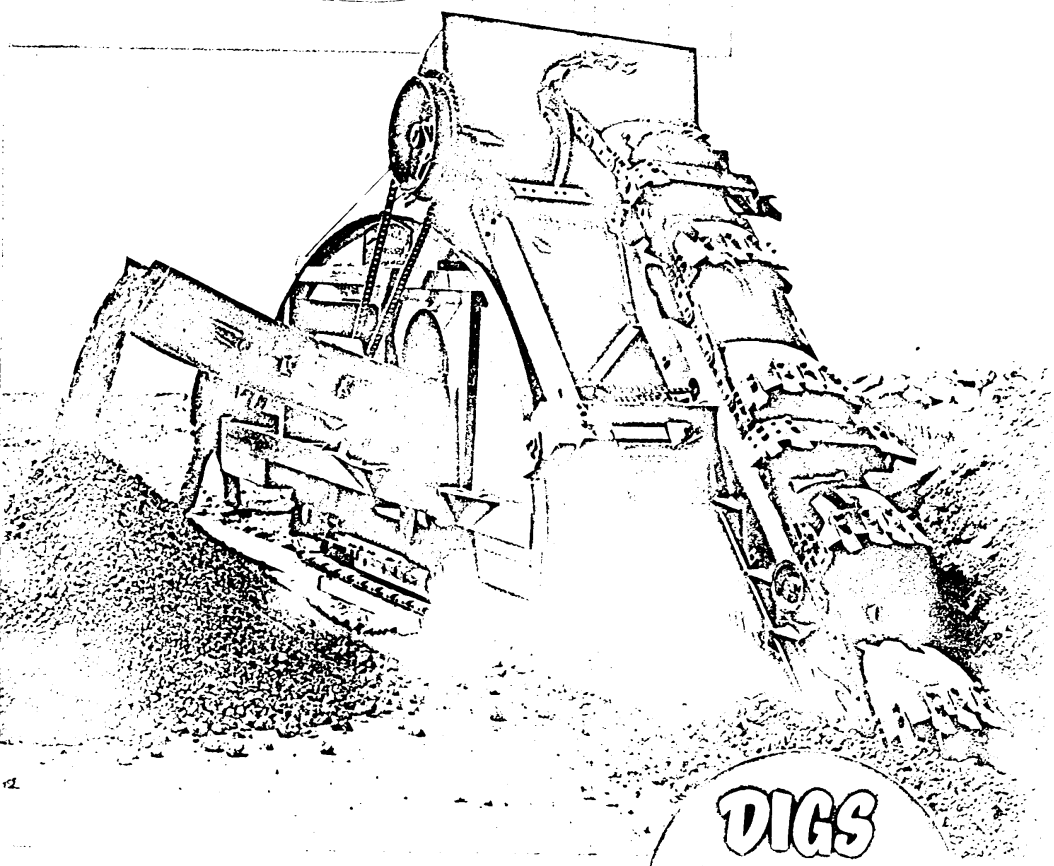
KOEHRING SUBSIDIARY

HUDACO

Hubert Davies & Co., Ltd.

P.O. Box 1386 — HUDACO HOUSE JOHANNESBURG Phone 33-1061

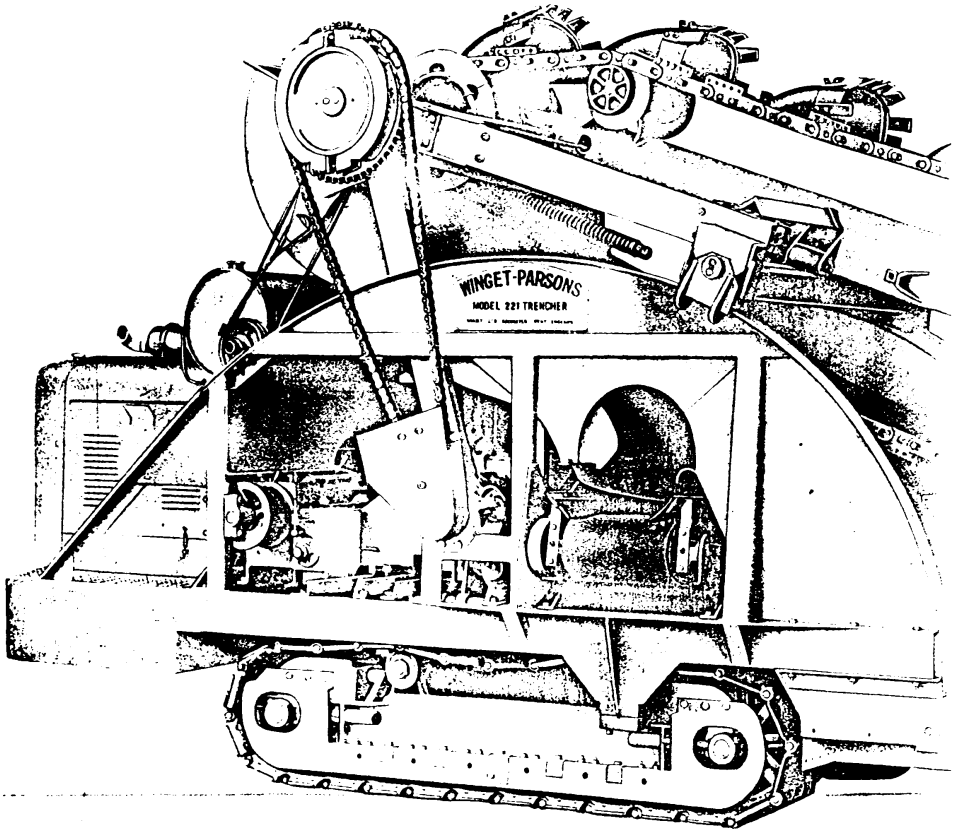
Winget-Parsons TRENCHER

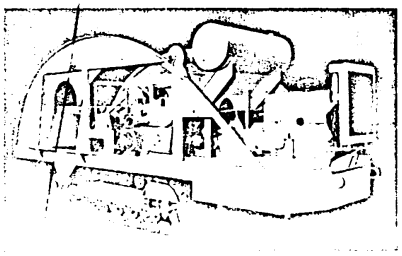


DIGS

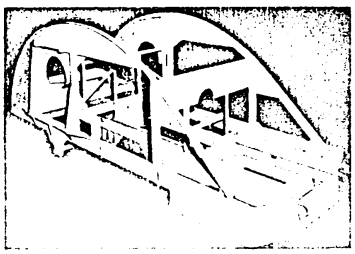
A versatile high-speed Trencher
Up-to-the-minute in design
Outstanding in performance

Winget-Parsons





Assembly
The machine has been designed for ease of assembly and [illegible] for accessibility in servicing and maintenance. [illegible], etc. Power unit, main gear case, [illegible] assembled to the machine complete, [illegible] can be easily removed for servicing [illegible].

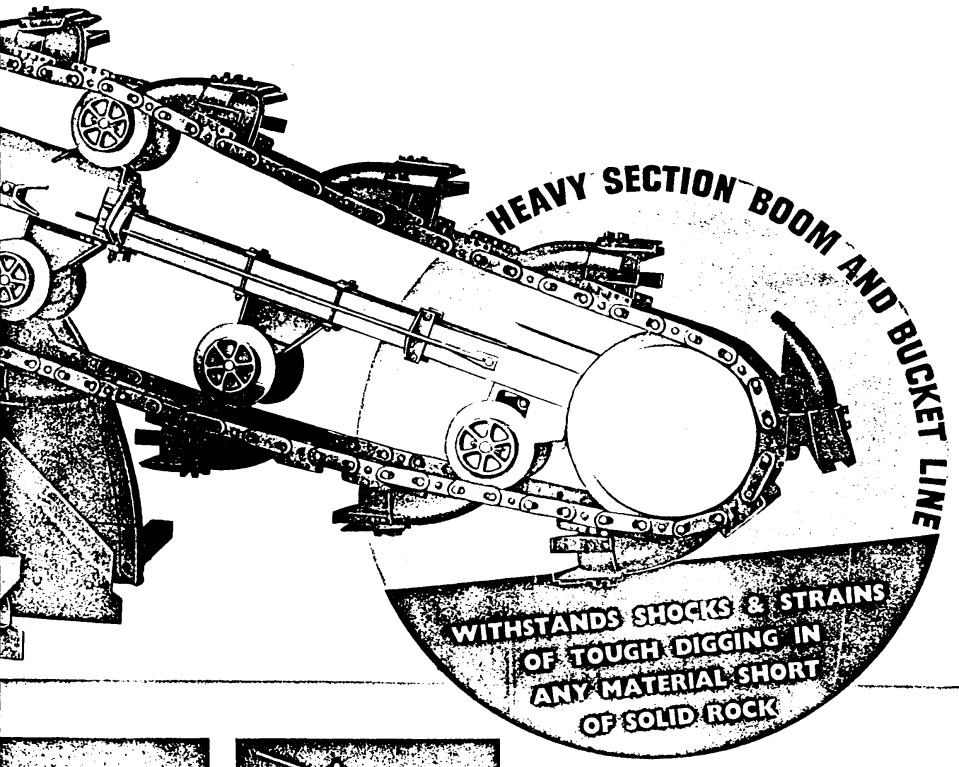


Main Frame
Duty demands a sturdy supporting structure to hold the transmission machinery in correct alignment. The main frame which is of Bridge type construction gives great strength necessary to withstand the toughest digging strains and is rig welded for accuracy.

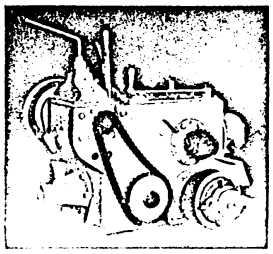
Traction
Traction arrangem[illegible]
The caterpillar frame[illegible]
points, so that unev[illegible]
on the main framew[illegible]
the weight of the ma[illegible]
approximately 6½ lb. p[illegible]
the best track laying [illegible]

221 TRENCHER

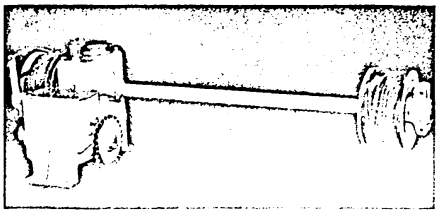
A high-speed heavy duty unit for faster trenching at less cost . . .



practical and thoroughgoing. s the machine on three bearing and causes no torsional strain Standard 16 in. Shoes distribute and give a bearing pressure of in. Steering is as simple as on rs.



Main Gear Case
Distributes power for traction drive, bucket line drive, conveyor belt drive, conveyor shift and boom hoist. Shafts run in large taper roller bearings, gears are machine cut, heat treated and run in oil. Proven troublefree transmission of power.



Boom Hoist Case
A large machine-cut phosphor bronze wheel engaging with a hardened steel worm and machine-cut steel gears totally enclosed, running in oil, together with a three part hoist rope, make fine and accurate grading a simple operation.

CONDENSED SPECIFICATION • Winget-Parsons 221 TRENCHER

Wide Working Range Depths to 8 ft. 6 in.

Nine Cutting Widths From 16 to 36 in.

Multiple Operating Speeds A selection of 25 speed variations from 2 in. to 118 in. per minute to give just the right bucket line speed and travelling speed to meet any excavating condition.

Shiftable Boom Telescopic type for initial depth setting. Boom shifts from side to side across the machine. Trenches can be excavated 10 in. from a side obstruction.

Power Shift Conveyor Shifts through machine in less than a minute.

Friction Clutch Control Steering, digging traction, engine.

Automatic Safety Clutch An automatic, two shoe type, protects machinery from shocks.

Fully Enclosed Gears For constant oil bath lubrication.

All-Welded Arch Type Frame Low centre of gravity for balance.

Double Universal Joint Coupling Corrects operating misalignments.

Low Ground Pressure Weight is well distributed over the tracks with bearing pressure approx. 7 lbs. per sq. in.

Depth of Trench Up to 8 ft. 6 in. maximum.

Widths of Trench Buckets 16 in., 20 in., 24 in. Side cutters 12 in. additional width on bucket size. Special teeth to cut an additional 6 in. wide on bucket width.

Conveyor Belt Speeds Five variations up to a maximum of 357 f.p.m.

Bucket Line Speeds Five variations up to a maximum of 232 f.p.m.

Travelling Speeds Five variations from ½ to 2¾ m.p.h.

Engine Standard Leyland UE 300 6 cyl. diesel, 50 h.p. at 1,500 r.p.m.

Shipping Weight Approximately 11 tons.

Boom Hoist Three part cable from worm and gear drive.

Buckets Pressed steel with alloy-steel lip.

Bucket Cleaners Spring cushioned with cutting blade action.

Bucket Teeth Chrome-vanadium heat treated forgings.

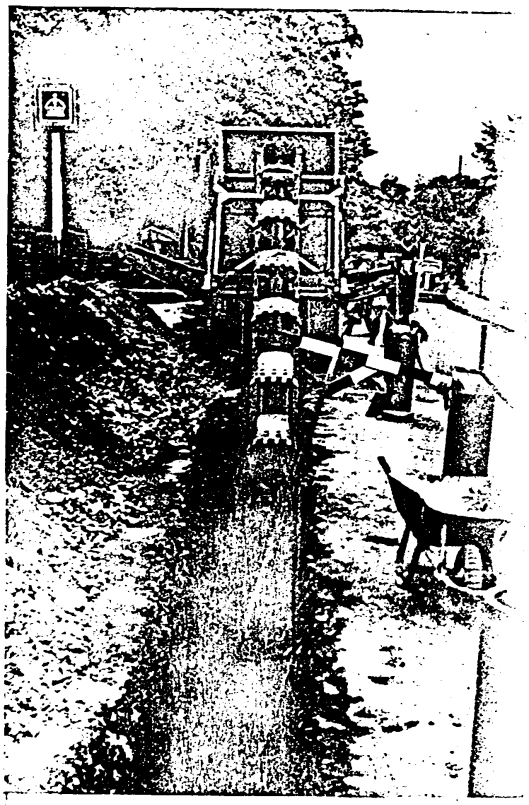
Conveyor Power shift reversible in direction.

Belt 20 in. wide guided by V-strip riveted to underneath side.

Gearing Completely enclosed and running in a continuous oil bath. All shaft openings sealed against dirt. Main transmission shafts mounted on roller bearings.

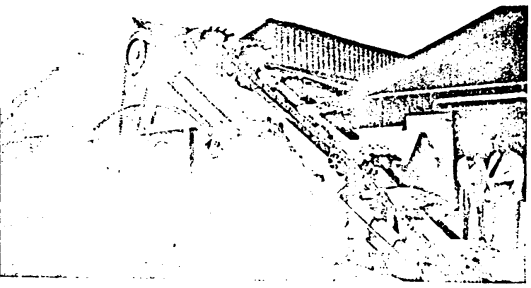
Master Clutch 13 in. heavy duty automotive type.

Steering Through multiple disc friction clutches and band type brakes. Turns completely round in own length. Equally effective in forward and reverse directions.



The 221 Trencher at work on a main drainage project in England

A thoroughly reliable machine



Pakistan Army Engineers are using this 221 Trencher at Lahore, Pakistan

Winget-Parsons Trenchers are manufactured under licence by

Registered *Trade Mark*

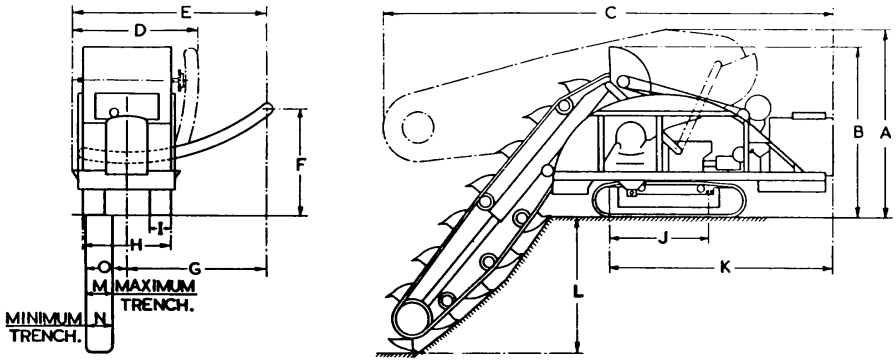
Winget

WINGET LTD. . ROCHESTER . KENT . ENGLAND
TELE: STROOD 72276 (5 LINES) GRAMS: WINGET ESM, ROCHESTER
London Office: Winget House, 24 Grosvenor Gardens, S.W.1
Tel. SLOane 7234 Grams: Wingetsm, Wesphone, London

D.T.I., W. & J. Mackay & Co. Ltd., Chatham

Publication No. 151

[illegible] TRENCHER



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
11'-9"	10'-8"	27'-10"	7'-11"	12'-1"	6'-9"	8'-9"	5'-6"	16"	7'-6"	14'-0"	8'-6"	36"	16"	2'-6"

DIMENSIONS CHART

WINGET LTD. · ROCHESTER · KENT · ENGLAND

Printed in Great Britain by D.T.V. W. & J. Mackay & Co. Ltd.

25X1